

Pediatric Physical Therapists Care the Health Status of Children with Special Needs  
under COVID-19

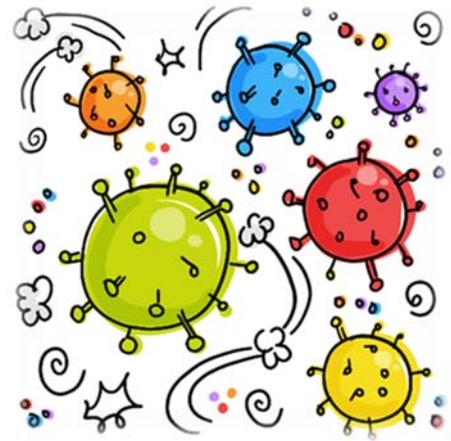
Hua-Fang Liao<sup>1</sup> Tze-Hsuan Wang<sup>2</sup> Yi-Ling Pan<sup>3</sup>

1 School and Graduate Institute of Physical Therapy, College of Medicine, National Taiwan  
University, Adjunct Associate Professor

2 Taiwan Association of Child Development And Early Intervention, Researcher

3 National Taiwan University Children's Hospital, Physical Therapist

Has the Coronavirus disease (COVID-19) outbreak stopped early intervention for children with special needs? What can we do about it? In fact, as long as we follow current trends and concepts of early intervention, provide our children with learning opportunities and experiences in the natural living environment and adopt the principles and methods of home-based early intervention; the early childhood intervention will not be interrupted as worried, but can be more useful for the improved intensity and diversity. Parents or family members now have more time to accompany their children, to understand their advantages and needs, interact with them and guide their learning; parents can also help their children to learn various skills in real life, experience pleasure and sense of accomplishment from learning by making a more facilitating environment and activities and gradually reducing the degree of assistance or prompts.



With the increasing globalization of developmental science, the role of children's living context in human development is getting more attention. Experts point out that "early childhood intervention" is different from "early childhood intervention services". "Early intervention" is for the primary caregivers, usually the parents, to support their children to gain meaningful learning opportunities and experiences in the natural environment. "Early intervention service" indicates the services for children and families who meet the qualifications for early intervention, provided by the early intervention professionals under the regulations of laws and policies. The professionals support parents to help their children continue to develop and learn from daily routines in natural settings. In fact, the early childhood intervention occurs between two early intervention services. Therefore, the more intervention, the better, but the early intervention services should be high-quality, not quantity, supported by substantial empirical evidence, and the services should be provided according to the individual needs of children and families. This epidemic will affect the time and frequency of receiving early intervention services. However, as long as parents make the

best use of the home environment and keep a positive attitude, the early intervention of children with special needs may not be limited. Instead, it may be a turning point to change the intervention at home in a better direction.

The outbreak of the COVID 19 epidemic also reminded me of the "biopsychosocial model" proposed by the World Health Organization in 2001. Activities and participation are caused by the interaction between health conditions and environmental factors. For children with special needs, the environmental factors of the social distancing caused by the pandemic have significantly reduced the diversity of outdoor and community activities and frequency of participation for children. Since the environmental barriers caused the restriction of participation, parents can reduce the impact by modifying the environment.

We recommend that on the one hand, parents increase the frequency and diversity of home-based early intervention, arrange various activities that children can participate at home so that children can continue to receive meaningful learning opportunities and experiences. On the other hand, try to reduce the negative impact of unable to participate in leisure activities and social interaction in the community. However, the most important factors for improving the quality of early childhood intervention are the health of the parents and the economic and quality of life of the family. Therefore, parents should not forget to take care of their physical and mental health first, but also allow themselves time to do what they want to do.

Routines-based early intervention emphasizes the integration of goals of early intervention plan into family daily routines, using existing resources in the family context for children exploration and learning, allowing young children to respond to natural prompts, and repeating exercises in a real-life situation. Therefore, the daily activities of infants and young children have become a part of young children's learning, and parents should take the initiative to propose to professionals and learn how to integrate early intervention into their daily routines.

Play and self-care are routines, and also essential content of the early intervention. Playing can promote development and health. Even if you are staying at home because of the epidemic situation, you can carefully observe the children's playing behavior and spend more time playing and interact with them. You will find that the children's motor, language, cognitive, and social functions develop through playing. The idea



of " fun and educational" can only be hidden in the minds of parents. When playing with children, they must respect the children's choices based on their internal motivations, follow children's lead, and modify accordingly. When parents feel fun from the bottom of their hearts, they will find that the real joy of playing comes from the interactive process itself, rather than having to learn something. As long as adults arouse their childlike innocence, every parent can be a playful child. Here are some tips for arranging playing activities at home. You can start with checking toys in your home, making a list, mark likes or dislikes, and the matching developmental age and place. If the child is old enough, you can discuss it with him/her to let them choose. For relatively young children, only one or two toys are given at a time and playing different toys on different days in turn so that the children will not be bored. Design games that adults can play with young children or for siblings playing together at home; games that can be played alone are good, too, for it is an ability for young children to play independently.



Self-care is not just a skill training, its development needs the support of many other developmental skills. To develop the self-care ability of children, firstly, parents must find and create opportunities for children to participate in daily life, and accumulate enough successful experience before the caregivers can let

go and let the children be independent. Self-care is not just a skill to take care of oneself. Young children can acquire various abilities in participating in self-care activities. For example, having meals can integrate a variety of skills according to different ages. Such as moving to the dining room, sitting on the chair, learning table manners, using a variety of food utensils suitable for his or her age, learning the names of food and related knowledge, talking with family members about what happened during the day to enhance familial relationships, and even help preparing and clean up before or after meals.



Regular exercise can enhance the immunity of children and reduce the risk of infection. If the situation permits, find an outdoor space which is less crowded and with fresh air to do some leisure activities. To prevent the infection, during the epidemic, try not to let young children join group activities, and do not touch the equipment in playgrounds. Instead, doing activities that can be carried out individually, such as hiking, cycling/ scootering, and climbing. For playing ball with family, try to dribble, kick, throwing, and catching to avoid physical contact or combat with others. Clean your hands and sports equipment after exercise. When returning home from the outdoors, be sure to wash your hands and change clothes. If the home environment is available, try to allow young children to have physical play or physical activities at home for a period of time. You can turn on the music, let the children dance and sing along with the melody, or put a mattress on the floor, let the children run or do soft exercises on it, or use the sheets to play peekaboo with infants, or camping in the living room. You can also use somatosensory game machines to exercise with young children at home to increase physical fitness. Sports videos on the internet are also useful resources, and you can do parent-child yoga or rhythm and gymnastics with the videos. There are also many online resources in Taiwan provided by the Wang Zhanyang Social Welfare Charity Foundation, such as information

about physical games and gross motor activities from the "Let the young children move- Magic Book of Health and Fitness for Slow Flying Angels -Teacher's Manual" and "Smart Moves, Smart Brains". You can register for the free membership and download the books online

(<http://www.wjy.org.tw/j20r/Cc1a00.do>). This outbreak let everyone realize the needs of tele-intervention services for children with special needs. Parents can ask your early treatment team or unit, whether there is tele-intervention distance learning related services, so that the early intervention team can continue to support families to provide children with learning opportunities and experiences.



or

When arranging or doing activities with young children, be sure to pay attention to their mastery motivations. As long as the children are motivated, they will actively participate in the activities, thus increasing the opportunities for repeated manipulation and interaction with toys, teaching materials, and people, resulting in better development. Mastery motivation refers to the inherent, multi-faceted psychological force of children, as that stimulates children to attempt, in a focused and persistent manner, to solve a problem or master a skill or task which is at least moderately challenging for him or her. Young children rely on mastery motivation to solve problems, learn skills to complete the task. Here are some strategies to improve mastery motivation of young children: 1) Arrange the toys, environment or activities that the child likes and with moderate difficulty so that the child has a successful and enjoyable experience; 2) Support and encourage the child to try more challenging activities independently. Although he/she may not be able to complete the activity successfully, parents should not give too much assistance too quickly; 3) Encourage children to develop the motivation to try independently, to develop their ideas of play,



and to explore the environment freely, to avoid excessive assistance or guidance from adults; 4)

The adults should be sensitive and responsive: when children play toys or perform activities, give appropriate and timely assistance to help young children to succeed. Through timely guidance from parents, the ability of young

children can be improved. For example, when the child is beading, if the parent understands that the child's eye-hand or bimanual coordination is not good enough, he/she can help stabilize the front end of the thread and let the child practice aligning the beads and inserting them into the end of the thread, or providing beads with larger holes and harder strings to make the child have more successful experiences; 5) Praise and encourage young children the attempt to try challenging activities, do not praise them only when they succeed, so that children will be more willing to try different things and will be more motivated to learn difficult tasks.

For information related to COVID-19 physical therapy, please refer to the Taiwan Physical Therapy Association Website (<http://www.tpta.org.tw/articles.php?type=news>).